Listing of the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

- 1. (Currently amended) A method for the local delivery of a nucleic acid to the nerve cells of a mammal, comprising a step of <u>directly</u> contacting the nerve cells with (a) a negative-sense RNA viral vector or (b) cells comprising said vector, wherein said negative-sense RNA virus <u>belongs to the Paramyxoviridae family is a Sendai virus comprising a Sendai virus genome and a foreign gene, wherein the foreign gene is inserted between the R1 and R2 loci of the Sendai virus.</u>
- 2. (Original) A method of claim 1, wherein said nerve cells are the central nervous system cells.
- 3. (Original) A method of claim 2, wherein said central nervous system cells are ventricular ependymal cells.
- 4. (Original) A method of claim 2, wherein said central nervous system cells are hippocampus cells.
 - 5. (Cancelled)

- 6. (Currently amended) A method of claim 5 1, further comprising transient expression of said foreign gene.
 - 7. (Canceled)
- 8. (Currently amended) A method of claim <u>5</u> 1, wherein said gene encodes a protein that acts on the hypothalamic nuclei.
- 9. (Currently amended) A method of claim 5 1, wherein said gene encodes a protein capable of protecting the brain from ischemia selected from the group consisting of fibroblast growth factors, nerve growth factors, apoptosis inhibitors, heat shock proteins, peroxidases, and neurotrophic factors.
 - 10. (Original) A method of claim 9, wherein said protein is neurotrophic factor.
- 11. (Currently amended) A method of claim -5- 1, wherein said foreign gene is selected from the group consisting of FGF-1, FGF-2, FGF-5, NGF, CNTF, BDNF, GDNF, p35, CrmA, ILP, bc1-2 and ORF 150.
 - 12 15. (Cancelled)
- 16. (Currently amended) A negative sense RNASendai viral vector used for the local delivery of a nucleic acid to the nerve cells by the method of claim 1 comprising a

Sendai viral genome and a foreign gene, wherein the foreign gene is inserted between the R1 and R2 loci of the Sendai virus and the foreign gene encodes a protein capable of protecting the brain from ischemia selected from the group consisting of fibroblast growth factors, nerve growth factors, apoptosis inhibitors, heat shock proteins, peroxidases, and neurotrophic factors.

- 17. (New) The Sendai viral vector of claim 16, wherein the gene encodes a protein selected from the group consisting of FGF-1, FGF-2, FGF-5, NGF, CNTF, BDNF, GDNF, p35, CrmA, ILP, bc1-2, and ORF 150.
- 18. (New) The Sendai viral vector of claim 17, wherein the gene encodes a protein selected from the group consisting of FGF-1, FGF-5, and GDNF.
- 19. (New) The method of claim 2, wherein the delivery comprises intraventricular administration.
- 20. (New) The method of claim 2, wherein the delivery comprises intraspinal administration.
- 21. (New) The method of claim 11, wherein the foreign gene is selected from the group consisting of FGF-1, FGF-5, and GDNF.